

Teaching and Learning in Quadrant D

ICN sessions
Nov. 7 and 28

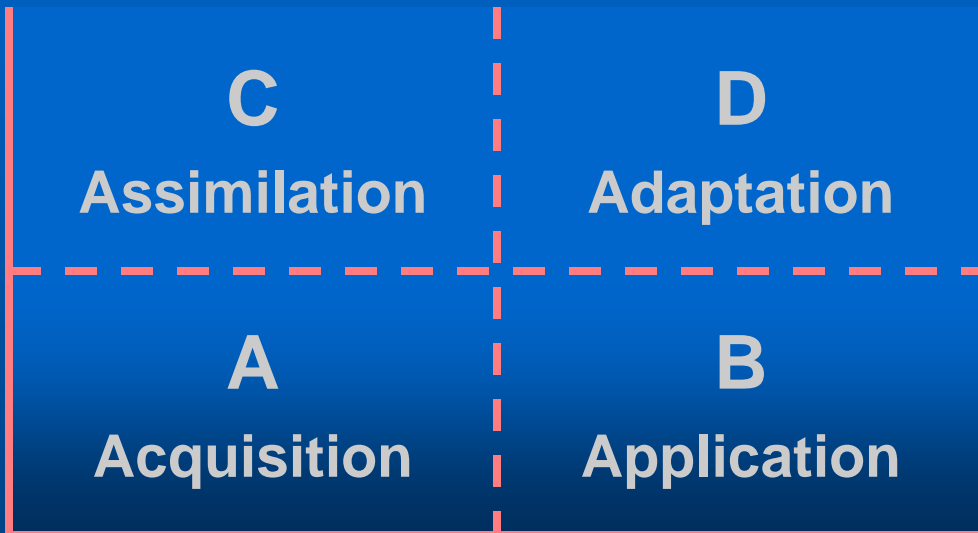
Iowa Core Curriculum

Rigor and Relevance Framework

**K
N
O
W
L
E
D
G
E**

Evaluation
Synthesis
Analysis
Application
Comprehension
Awareness

6
5
4
3
2
1



1

2

3

4

5

Knowledge in
one discipline

Apply
knowledge in
one discipline

Apply
knowledge
across
disciplines

Apply
knowledge to
real-world
predictable
situations

Apply
knowledge to
real-world
unpredictable
situations

APPLICATION

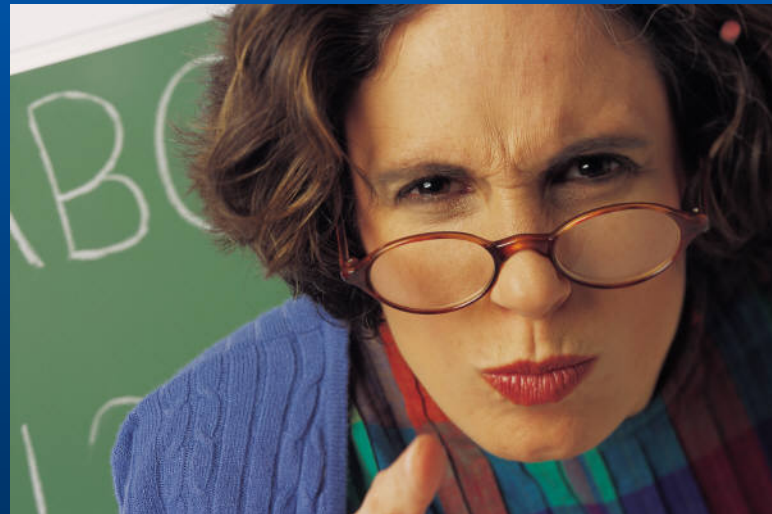
About Price Laboratory School

- Demographics—students and faculty
- Why we decided to attempt to increase rigor and relevance
- Our process—what happened as we began to work



Question for discussion

- How might you try to reach faculty members who are particularly hesitant?



Strategies for Increasing Buy-In

- Deliberate groupings
- Start with lessons you've targeted for improvement
- Observe and respond
- Present things that can't be argued against
- Have one-on-one conversations with hesitant people

Why the Framework?

- Tasks teachers choose to use in their teaching affect not only content that students learn but also the depth and quality of that learning

R
I
G
O
R

C

Assimilation

D

Adaptation

A

Acquisition

B

Application

R E L E V A N C E

Iowa Core Curriculum

What does Quadrant D look like?

- Classroom Environment
 - Always be aware of who is doing the thinking—the teacher or the student.
 - Reasonable guessing is valued
 - Sharing one's thinking is expected
 - Justifying one's assertions is the norm



What does Quadrant D look like?

- Allow learning to be problematic
 - Requires believing that all students need to ***struggle*** with challenging problems if they are to learn deeply.
 - Students must ***engage*** in the task if it is to become problematic for them.

Student Quote

My most memorable learning experience was “going to the Butler County Jail and Courthouse in Business Law class because it was fun finding out first hand what goes on during a trial and in the jail.”



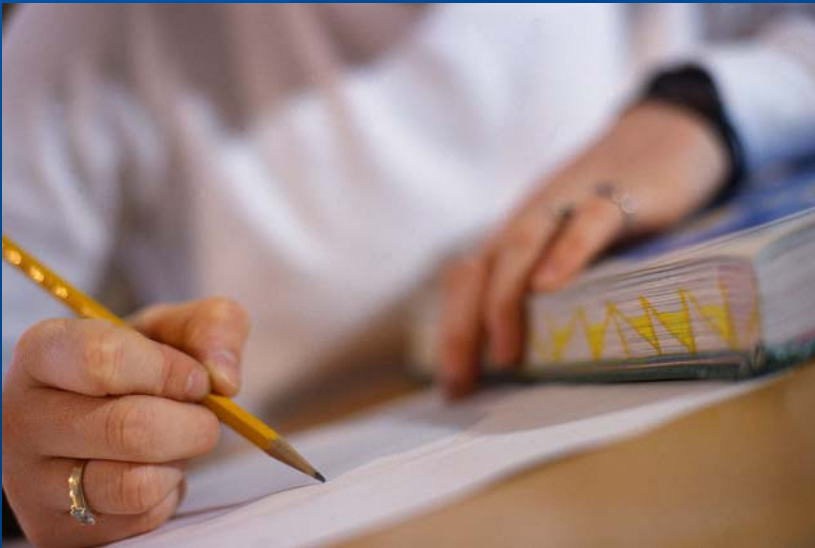
Quadrant D Lesson Example

- **Business Law Mock Trial**
 - After visiting the Butler County Courthouse, students engage in a mock trial.
- **Why is it a Quadrant D Lesson?**
 - **Relevance: Real-World Predictable**
 - **Rigor: Synthesis**



Question for discussion

- If this is what a rigorous and relevant instructional task should look like, then what should students be doing?



Iowa Core Curriculum

What does student work look and sound like?

- See something problematic that needs to be resolved
- Frame the task for themselves
- Deeply think about the context of the problem



Iowa Core Curriculum

What does student work look and sound like?

- Collects data/information
 - often takes the form of research
- Finds commonalities and differences within the data/information
- Analyzes and synthesizes data/information

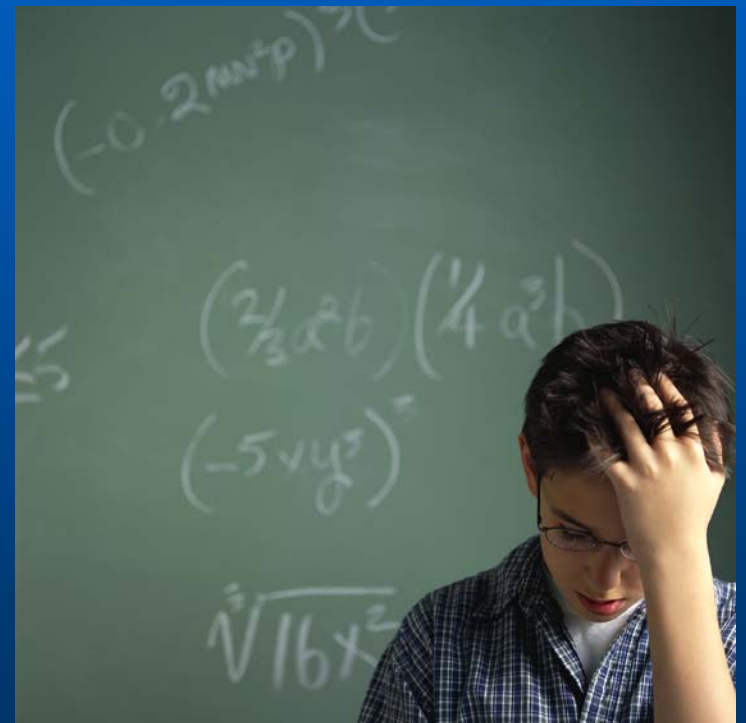


What does student work look and sound like?

- Communicates understanding
 - Language Arts—Projects that allow students to make choices about content and delivery mode
 - Business—Evaluating each others' work
 - Math—students share findings and record formal definitions and understandings

Student Quote

- *Ben in 7th Grade: "Mrs. Balong, if you do not tell me, how will I understand?"*
- *Ben in 11th Grade: "Mrs. Balong, if you tell me, I won't understand."*



Quadrant D lesson example

- **Light Intensity**

Students gather data on light intensity using a projector. They model their data using power functions and decide what practical and scientific problems can be solved by use of power functions.

- Rigor: analysis (possible synthesis)
- Relevance: real-world predictable

Question for discussion

- Question: Understanding what the classroom environment and student work look like, what should teacher work look like?



How does teacher planning change?

- **More work is done before the lesson**
 - A thorough description of the parameters and evaluation method of the learning
 - Must include formative assessment to guide instructional decision-making
 - Includes appropriate scaffolding to meet the needs of all students in the class
 - The task is well-developed, allowing more student freedom and less teacher direction in the learning environment

What does teacher work look like?

- Cultivate an environment that expects students to adopt problems as their own and supports them in doing so
- Select problems that connect with students' lives
- Refrain from stepping in and doing too much of the thinking too quickly
- Engage in questioning with students, leading to deeper understanding of the topic
- Assesses understanding

Teacher Quote

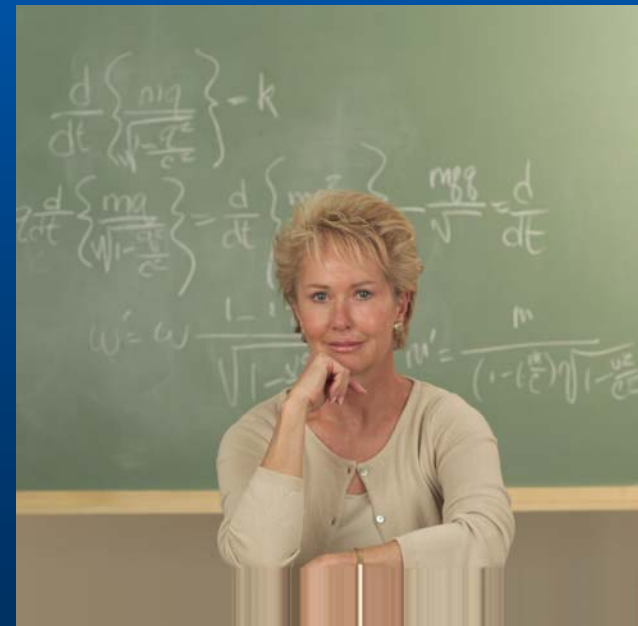
- **Moving the responsibility for learning from the teacher to the student is difficult.**
 - “It’s not what students expect from school—they get frustrated because they have to think.”

Quadrant D lesson example

- **Film as Literature**
 - After learning about various techniques filmmakers use, students create their own films. They share these films in class and at a class film festival
 - **Relevance: Real-world unpredictable**
 - **Rigor: Synthesis**

Question for discussion

- Question: What is/will be difficult for teachers trying to incorporate more Quadrant D tasks?



What were the challenges for us?

- Learning a new framework and reconciling differences
- Understanding the interdisciplinary element
- Aligning assessment and instruction
- Having patience to let learning happen
- Analyzing important concepts--takes longer to teach

What were the challenges for us?

Business Law Justice Journal

- **Then**

- Reflective of student learning/class discussions
- Assessment of what students knew

- **Now**

- Present with case
- Students make predictions and hypothesis about what “should” happen
- Students synthesize journal components to draw conclusions

What were the challenges for us?

- **Effects**

- **Students resistant to change**
- **Re-evaluated course content**
 - **Broader concepts**
 - **Combined units**
- **Re-designed course structure**
 - **Unit Structure**
 - **Planning**

What were the challenges for us?

- **Difficult to narrow down**
 - Rigor?
 - Relevance?
 - Assessment?
- **Changed every rubric**
- **Changed many assignments**
 - Hamlet
- **Changed entire course structure**
 - Great Books

Teacher Quote

- Moving toward more rigor and more relevance is difficult because,
 - “There’s no quick fix. It requires hard work every day.”

Question for discussion

- Understanding that increasing rigor and relevance is hard work, why is it worthwhile?



Positive effects for us

- Student ownership of their learning
- Deeper understanding of content
- Students are more independent
- Improved problem-solving skills
- Increased student engagement
- Students are better able to work cooperatively

Questions and Contact Information

- Contact us:
- Website.....www.pls.uni.edu
- Dave Smith, Director.....dave.smith@uni.edu
- Megan Balong, Math.....megan.balong@uni.edu
- Leasha Henriksen, Business.....leasha.henriksen@uni.edu
- Bridgette Wagoner, Lang. Arts.....bridgette.wagoner@uni.edu



Future ICN Presentations

- In-depth look at each of the three content areas
 - Mathematics – Dec. 13 and Jan. 4
 - Science – Dec. 20 and Jan. 12
 - Literacy – Jan. 22 and Jan. 26
 - All scheduled for 8:30-10:30 and 2:00-4:00
- Register at ed.requestsession@iowa.gov